What is claimed is:

1. In electronic apparatus manufacturing wherein conductive paths through an insulating layer is used to contact at least one circuitry node pad on at least one surface of the insulating layer, and the conductive paths are formed by placing an adhesive paste of coated particles suspended in a vehicle in at least one via hole in at least one insulating layer, the improvement method comprising the serial combination of the steps of:

providing of an adhesive paste,

said adhesive paste having random sizes of micrometer diameter range particles each coated with a low melting temperature metal suspended in a vehicle of a mixture of thermosetting resins together with a flux resin selected for viscosity and low shrinkage,

introducing said adhesive paste into said at least one via hole in said at least one insulating layer, and,

subjecting the combination of said adhesive paste in said at least one via hole in said at least one insulating layer to a vehicle curing cycle including heat of the order of said low melting temperature of said metal and pressure.

2. The improvement method of claim 1 wherein said random sizes of micrometer diameter range particles are in the range of 5 -7 micrometers of a material selected from the group of Cu, Ni, Co, Ag, Pd, Pt, polymer and ceramic.

3. The improvement method of claim 1 wherein said low melting temperature metal is a material taken from the group of In,Sn, In-Sn, Sn-Pb, Bi-Sn, Bi-Sn-In and InAg.

4. The improvement method of claim 1 wherein said thermosetting resins in said vehicle are taken from the group of cyclo-aliphatic epoxy, phenoxy polymer, and, mono-functional limonene oxide.

5. The improvement method of claim 3 wherein said thermosetting resins in said vehicle are taken from the group of cyclo-aliphatic epoxy, phenoxy polymer, and, mono-functional limonene oxide and a flux.

6. The improvement method of claim 1 wherein said particles are of Cu, said low melting temperature metal is Bi-Sn and said thermosetting resins in said vehicle are taken from the group of cyclo-aliphatic epoxy, phenoxy polymer, monofunctional limonene oxide and a flux.

7. The improvement method of claim 1 wherein said particles are of Cu, said low melting temperature metal is Bi-Sn and said thermosetting resins in said vehicle are taken from the group of cyclo-aliphatic epoxy, phenoxy polymer, and a flux.

8. In electronic apparatus manufacturing wherein conductive paths through an insulating layer is used to contact at least one circuitry node pad on at least one surface of the insulating layer, and the conductive paths are formed by placing an adhesive paste of coated particles suspended in a vehicle in at least one via hole in at least one insulating layer, the improvement method comprising the serial combination of the steps of: providing of an adhesive paste,

said adhesive paste having random sizes of 5 -7 micrometer diameter range Cu particles each coated BiSn suspended in a vehicle of a mixture of cyclo-aliphatic epoxy, phenoxy polymer, mono-functional limonene oxide and a flux,

introducing said adhesive paste into said at least one via hole in said at least one insulating layer, and,

subjecting the combination of said adhesive paste in said at least one via hole in said at least one insulating layer to a vehicle curing cycle including heat of the order of said low melting temperature of said metal and pressure.

9. In electronic apparatus manufacturing wherein conductive paths through an insulating layer is used to contact at least one circuitry node pad on at least one surface of the insulating layer, and the conductive paths are formed by placing an adhesive paste of coated particles suspended in a vehicle in at least one via hole in at least one insulating layer, the improvement method comprising the serial combination of the steps of:

providing of an adhesive paste,

said adhesive paste having random sizes of 5 -7 micrometer diameter range Cu particles each coated BiSn suspended in a vehicle of a mixture of cyclo-aliphatic epoxy, phenoxy polymer,and a flux,

introducing said adhesive paste into said at least one via hole in said at least one insulating layer, and,

subjecting the combination of said adhesive paste in said at least one via hole in said at least one insulating layer to a vehicle curing cycle including heat of the order of said low

melting temperature of said metal and pressure.

10. In electronic apparatus manufacturing wherein conductive paths through an insulating layer is used to contact at least one circuitry node pad on at least one surface of the insulating layer, and the conductive paths are formed by placing an adhesive paste of coated particles suspended in a vehicle in at least one via hole in at least one insulating layer,
the improvement method comprising the serial combination of the steps of:
providing of an adhesive paste,
said adhesive paste having random sizes of 5 -7 micrometer diameter range Cu particles each coated BiSn suspended in a vehicle of a mixture of cyclo-aliphatic epoxy, phenoxy polymer, mono-functional limonene oxide and a flux,
introducing said adhesive paste into said at least one via hole in said at least one insulating layer, and,
subjecting the combination of said adhesive paste in said at least one via hole in said at least one insulating layer to a vehicle curing cycle including heat of the order of said low melting temperature of said metal and pressure.

11. The improvement method of claim 9 wherein said mixture of cyclo-aliphatic epoxy, phenoxy polymer,and a flux is in a proportion of epoxy 86%, phenoxy polymer 10% and flux 4 %.

12. The improvement method of claim 10 wherein said mixture of cyclo-aliphatic epoxy,

phenoxy polymer,mono-functional limonene oxide and a flux is in a proportion of epoxy 43%, phenoxy polymer 10%,mono-functional limonene oxide 43%,and flux 4%.

13. The improvement method of claim 10 wherein said mixture of cyclo-aliphatic epoxy, phenoxy polymer,mono-functional limonene oxide and a flux is in a proportion of epoxy 4%, phenoxy polymer 4%,mono-functional limonene oxide 88%,and flux 4%.